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# Quarterly Newsletter

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## Mark your calendars! RMACSM 2015 Annual Meeting March 27-28, 2015 Springhill Marriott in Denver

Planning for the upcoming RMACSM Annual Meeting is well underway with a great lineup of speakers and topics.

New this year:

- **Past President's Lecture** provided by **Scott Drum, PhD**, Northern Michigan University—"Physiologic Response to Exercise Training among Cancer Survivors"
- **Fellow's Lecture** provided by **William Byrnes, PhD**, University of Colorado at Boulder—"Muscle Activation and Health: Avoiding the Dangers of Too Much Sitting"
- **ACSM Representative** will be presenting "ACSM Certification—The Basics"
- **Tim Behrens, PhD, CHES, FACSM**, University of Colorado at Colorado Springs will provide a lunchtime talk on "ACSM Fellowship Opportunities"

See pages 2 and 3 for full schedule

### Some notable information about the meeting:

- Student Bowl will be held once again—winning team will be provided \$1000.00 to help defray travel costs to ACSM Conference
- Second Annual Honor Award will be presented
- Registration fees—same as last year!
- Saturday AM (6:45 AM—7:45 AM) Physical Activity Session—come dressed to exercise!
- Nothing scheduled on Friday evening—we are looking at some local restaurants where people can go eat as a group
- Schedule is about the same as last year—registration begins at 11:00 AM on Friday with the first presentation at 1:15 PM.
- Poster judging will be from 4:30—6:30 PM on Friday during the reception time
- Box Lunches will be provided on Saturday
- Research Grants will be awarded to up to 4 people

For information on submitting Research Grant applications and Abstracts, click on the Student Awards tab on the RMACSM.org website.

# ROCKY MOUNTAIN CHAPTER—

## RMACSM Annual Meeting Brochure

March 27-28, 2015

Marriott Springhill Suites

1190 Auraria Parkway, Denver, Colorado 80204

Phone: 303-705-7300

Toll Free: 888-236-2427

A limited number of rooms are being held at the rate of \$129/room. Call now to make reservations—to receive the special rate, let them know you are with RMACSM.



Students who want to volunteer at the meeting should contact: Mary Dinger at [mary.dinger@unco.edu](mailto:mary.dinger@unco.edu)

To Register: visit the RMACSM.org website or register at the door.

To join ACSM:  
[Acsm.org](http://Acsm.org)—click on Join ACSM

7 CEU credits will be granted to those attending



## Registration Fees:

**Professional ACSM Members: \$80.00**

**Professional Non-ACSM: \$130.00**

**Student ACSM Members: \$40.00**

**Student Non-ACSM: \$60.00**

**- DRAFT - Schedule of Events - DRAFT -**

**Friday, March 27th**

<b>11:00 AM—1:00 PM</b>	Registration	
<b>1:00 PM—1:15 PM</b>	Welcome and Introduction of the Board	Enette Larsen and Melissa Benton
<b>1:15 PM—2:10 PM</b>	<b>Keynote:</b> “ ” by Mark D Peterson, PhD, University of Michigan	
<b>2:15 PM—3:10 PM</b>	<b>Gatorade Lecture: “Small Changes, Big Rewards: Strategic Communication for Physical Activity”</b> by Dixie Stanforth, PhD, University of Texas—Austin	
<b>3:10 PM—3:30 PM</b>	Break	
<b>3:30 PM—4:20 PM</b>	<b>2014 Grant Winner Presentations</b>	
<b>4:30 PM—6:30 PM</b>	Opening Reception and Poster Judging (Students Remain by their posters as follows: Odd numbers from 4:30—5:30 PM, Even number posters from 5:30—6:30 PM)	
<b>6:45</b>	<b>RMACSM Dinner get-togethers—complete information at registration</b>	

**Saturday, March 28th**

<b>6:45 AM—7:45 AM</b>	<b>Physical Activity Session—(optional) with Mike Brown, MEd—Your Movement Health! Boulder, CO—come dressed to exercise!</b>	
<b>8:00 AM—8:30 AM</b>	RMACSM Business Meeting	Board Members
<b>8:30 AM—8:45 AM</b>	Announcements and Introduction of New Board Members and Poster Winners	
<b>8:45 AM—9:45 AM</b>	<b>ACSM Certification—“The Basics”</b>	
<b>9:45 AM—10:45 AM</b>	<b>Fellow’s Lecture: “Muscle Activation and Health: Avoiding the Dangers of Too Much Sitting”</b> by William Byrnes, PhD, University of Colorado at Boulder	
<b>10:45 AM—11:00 AM</b>	Break	
<b>11:00 AM—Noon</b>	<b>Past President’s Lecture: “Physiologic Response to Exercise Training Among Cancer Survivors”</b> by Scott Drum, PhD, Northern Michigan University	
<b>Noon—12:50 PM</b>	Box Lunches and presentation by <b>Tim Behrens, PhD, CHES, FACSM</b> University of Colorado—“ACSM Fellowship Opportunities”	

**Track #1**

**Track #2**

<b>1:00 PM—1:40 PM</b>	<b>“Implications of a Vegan Diet for Athletic Performance”</b> by Andrea Gorman, PhD, RD, Rocky Mountain University of Health Professions	“ ” by Barry Braun, PhD, Colorado State University
<b>1:45 PM—2:25 PM</b>	<b>“Stability, Mobility and Movement Training for Law Enforcement Officers”</b> by Jay Dawes, PhD University of Colorado at Colorado Springs	<b>“Capsaicin Fuels a Fire in Fat: A Novel Approach to Counteract Obesity”</b> by Baskaran Thyagarajan, PhD, University of Wyoming
<b>2:30 PM—3:15 PM</b>	<b>“Exercise Therapy for Peripheral Artery Disease”</b> by Mark Patterson, MEd, RCEP Kaiser Permanente of Colorado	<b>“Use of Skeletal Muscle Ultrasound to Measure Skeletal Muscle Glycogen”</b> by Inigo San Millan, PhD, University of Colorado at Denver
<b>3:00 PM—3:15 PM</b>	Break	
<b>3:15 PM—4:00 PM</b>	Student Bowl	
<b>4:00 PM—4:30 PM</b>	Winning Student Poster Presentations	
<b>4:30 PM</b>	Closing Remarks and Farewell	

## Reprinted with permission of the American College of Sports Medicine, ACSM Current Comment "Energy Expenditure in Different Modes of Exercise"

One of the primary goals of an exercise program is to develop and maintain cardiorespiratory fitness. Many people engage in aerobic activities to improve their health status, reduce disease risk, modify body composition and improve all around physical fitness. It is important to select a mode of exercise that uses the large muscles of the body in a continuous rhythmical fashion, and that is relatively easy to maintain at a consistent intensity. It is interesting to note that not all modes of exercise are comparable in terms of energy (caloric) expenditure. However, several factors, in addition to energy expenditure, should be considered when selecting an exercise mode.

### **Classification of Aerobic Exercise Modalities**

The American College of Sports Medicine (ACSM) classifies aerobic exercise modes by the varying skill demands of the activity. Group I activities provide a consistent intensity and energy expenditure that are not dependent on the participant's skill level. These would include activities such as walking, cycling, jogging, and simulated climbing. With Group II activities, the rate of energy expenditure will vary greatly depending on the person's performance ability. With higher skill levels, a person can work harder and longer, and consequently burn more calories. Activities in this group would include aerobic dancing, bench stepping, hiking, swimming and water aerobics. The Group III activities, such as basketball, racquet sports, and volleyball are highly variable in terms of energy expenditure due to the performance demands of the activity. For long-term cardiovascular health, it is important to select a variety of activities that sufficiently stimulate the heart, lungs, and muscles.

### **Exercise Mode Considerations**

In addition to energy expenditure, some factors to consider when selecting a mode of exercise include personal interest, equipment and facility availability, physical needs, injury risk and fitness goals. Therefore, selecting the appropriate mode (s) of exercise is essential for continued consistent energy expenditure. It is meaningful to note that additional health and fitness benefits will be attained as the amount and intensity of exercise increase.

### **Intensity of Exercise: Optimizing Energy Expenditure**

A major way to optimize energy expenditure is to vary the intensity of the exercise. It is important to choose a mode of exercise that can be adjusted or graded to overload the cardiorespiratory system. For instance, treadmill walking can be made much more challenging by increasing the treadmill grade. Cycling intensity can be made more demanding by increasing the pedaling resistance. Adding a step riser to elevate the stepping height can boost the step aerobics workout intensity. In addition, choosing a mode that allows for high intensity intervals interspersed with low-to-moderate intensity intervals may also increase energy expenditure.

### **Upper and Lower Body Modalities**

Some exercise modes involve both the upper and lower body muscles, such as swimming, rowing, and simulated skiing. Although these types of exercises engage more muscles, they do not necessarily engage as much muscle mass as running, and will expend slightly fewer calories at a similar level of intensity. However, swimming involves much less pressure on the bones and joints, which allows swimmers to exercise for a longer period of time, thus possibly expending as much energy as higher intensity workouts. Also, some upper and lower body exercise modes, such as simulated skiing require a fairly proficient skill development phase before fully realizing the energy expenditure benefits.

### **Non-Weight-Bearing versus Weight-Bearing Modalities**

Cycling and recumbent cycling are two very popular non-weight-bearing exercise modes, whereas walking and jogging are popular exercises in the weight-bearing category. At the same level of intensity, most persons will expend more calories performing a weight-bearing activity. An additional benefit of weight-bearing exercise is maintaining bone mass and preventing osteoporosis. However, with cycling and recumbent cycling there is much less trauma to the muscles and joints, heart rate is generally lower, and thus longer exercise bouts are possible.

### **Walking versus Running**

Both walking and running require very little skill and are convenient modes of exercise. Brisk walking, which is one of the most popular aerobic activities in the US, has been shown to produce positive health benefits. From an energy expenditure standpoint, running will burn more calories than walking due to the increased intensity of the activity. However, increased zeal to boost energy expenditure with running compounds the risk of injury to the feet, ankles, knees and back. Some persons choose to carry hand-held weights in hope of enhancing energy expenditure when walking. Although the use of hand-held weights increases the perceived intensity of the exercise, research reveals that this additional equipment does not satisfactorily increase energy expenditure.

### **Choosing the Exercise Mode: The Final Decision**

Although research results suggest that weight-bearing aerobic exercise, at a self-selected intensity, will elicit the highest energy expenditure, several other considerations have been discussed for selecting an exercise mode. Because of the great diversity of aerobic exercise equipment presently available, more and more exercise enthusiasts now prefer to cross-train on a variety of exercise modes, which combines high exercise enjoyment with reduced musculoskeletal risk.

Written for the American College of Sports Medicine by Len Kravitz, PhD and Chantal A Vella, MS

## **Texas Woman's University (TWU) in Denton, TX Kinesiology Graduate Assistantships**

Graduate students interested in preparing for teaching and research careers in higher education are encouraged to apply for a competitive Graduate Teaching Assistantship (GTA) at Texas Woman's University in the areas of Exercise Physiology, Adapted Physical Education, Biomechanics, Coaching, or Sport Management. The majority of GTAs at TWU are awarded to Ph.D. students; however Master's students are also eligible. Graduate Teaching Assistantships are available primarily in the areas of exercise physiology. We are also seeking GTAs in adapted physical education, biomechanics, coaching, and sport management.

[Graduate TWU Teaching Assistantship in Exercise Physiology](#)

[Graduate TWU Teaching Assistantship in Other Kinesiology Areas](#) (Adapted Physical Education, Biomechanics, Coaching, Sport Management.)

## **Adams State University in Alamosa, Colorado is looking to fill a tenure-track assistant professor position in exercise science beginning in August 2015.**

The position announcement is linked below (if you can't click on the link, copy and paste to your browser):

<http://www.adams.edu/administration/hr/fe1101%20assistant-associate%20professor%20of%20exercise%20science.pdf>

If you have any questions, contact Tracey:

Tracey L. Robinson, Ph.D.  
Professor, Dept. of HPPE  
Exercise Science Graduate Program Coordinator  
Adams State University

[719-587-7663](tel:719-587-7663)      [tlrobbins@adams.edu](mailto:tlrobbins@adams.edu)

## **University of Wyoming in Laramie, Wy—Division of Kinesiology and Health, College of Health Sciences is seeking a Tenure track Assistant/Associate Professor, beginning August 2015**

Required qualifications include earned doctorate with evidence of scholarship in applied or basic exercise physiology or closely related discipline. Expertise to effectively teach undergraduate exercise physiology and undergraduate/graduate specific exercise physiology related courses

For full consideration, complete applications should be received by January 12, 2015; review of applications will be ongoing until the position is filled.

For complete information, click on the following link or copy and paste to your browser:

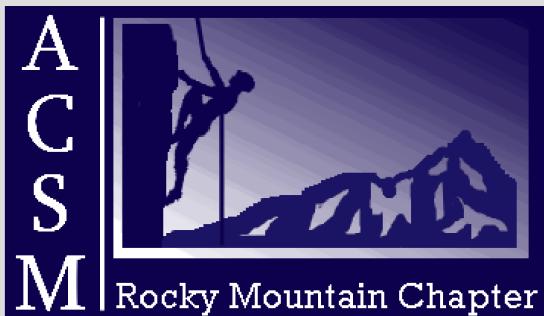
<http://www.uwyo.edu/hr/hremployment/showjob.asp?jobid=13460>

## **RMACSM Leadership Opportunities**

**Consider volunteering to be a candidate for one of the open positions on the RMACSM Board. Election will take place during March of 2015 and winning candidates will be announced before the Annual Meeting, March 27-28, 2015. New Board members will take office at the Annual Meeting.**

- President-Elect (3 year commitment—1 year as president-elect, 1 year as president and 1 year as past-president)
- Front Range Rep - (currently filled by Dave Hydock) - 2 year commitment
- Front Range Rep - (currently filled by Teresa Sharp) - 2 year commitment
- Southwest Rep - (currently filled by Tracey Robinson) - 2 year commitment
- Regional ACSM Chapter Rep (currently filled by Tim Behrens) - 3 year commitment

The Board meets monthly via telephone conference. Timing of the calls is subject to change based on the majority of members' availability. Currently we are meeting on the first Tuesday of the month at 3:00 PM. Other duties center around all aspects of the Annual Meeting, usually held during the last of March or first of April. Candidates should submit a biography to Rose Steen— [rjsteen2009@gmail.com](mailto:rjsteen2009@gmail.com) —by March 1, 2015.



**Rocky Mountain Chapter  
American College of Sports  
Medicine**

**Rose Steen  
Executive Director  
Newsletter Editor**

**Phone: 970-214-2986**

**E-mail: [rjsteen2009@gmail.com](mailto:rjsteen2009@gmail.com)**

**Please contact me if you have ideas for  
articles in future Newsletters.**

## Upcoming Events

Location	Event	Date
Denver	41st Annual Mile High United Way Turkey Trot	Nov 27, 2014
Greeley	NCMC Turkey Trot	Nov 27, 2014
Westminster	Fa La La 5K, 10K & Half Marathon	Dec 6, 2014
Golden	Christmas Crusade 5K	Dec 6, 2014
Denver	Ugly Sweater Run	Dec 20, 2014
Denver	Resolution 5K—30th Anniversary	Dec 31, 2014
Littleton	Frosty's Frozen Five & Ten	Jan 17, 2015
Denver	Super Bowl 5K—Where the Gridiron Meets the Road IV	Feb 1, 2015

This is just a small sample of events listed on active.com. For more information on any of the above or to register, go to active.com

## Safety Tips for Exercising Outdoors By Rose Steen

This polar vortex we are currently experiencing was good for something—it gave me an idea for a little article for this newsletter!

This information comes from the Mayo Clinic website:

**Pay Attention to Weather Conditions and Wind Chill:** Risk of frostbite is less than 5 percent when the air temperature is above 5 degrees F. At wind chill levels below minus 18 F, frostbite can occur on exposed skin in 30 minutes or less. Consider exercising indoors if the temperature dips below 0 F.

**Know the Signs for Frostbite and Hypothermia:** Frostbite is most common on exposed skin but can also occur on hands and feet. Early signs include numbness, loss of feeling or a stinging sensation. Hypothermia is ab-

normally low body temperature and signs and symptoms include intense shivering, slurred speech, loss of coordination and fatigue. Seek emergency help right away for possible hypothermia.

**Dress in Layers:** First put on a thin layer of synthetic material, such as polypropylene, which draws sweat away from your body. Avoid cotton, which stays wet next to your skin. Next, add a layer of fleece or wool for insulation. Top this with a waterproof, breathable outer layer. You may need to experiment to find the combination that works best for your body type and exercise intensity. Doing a combination of walking/running may make you more vulnerable to the cold if you work up a sweat and then get chilly.

**Protect Head, Hands, Feet and Ears:** When it is cold, blood flow is concen-

trated on your body's core leaving head, hands, feet vulnerable to frostbite. Wear a hat that covers your ears—it's estimated that 50% of body heat is lost through the head. Gloves/mittens can be layered with a thin layer of a wicking material under a heavier pair of mittens that can be removed. Shoes larger than normal will allow for heavier socks.

**Don't Forget Safety Gear—and Sunscreen:** Wear reflective clothing if you are out in the dark during short winter days, helmets for skiing, snowboarding, etc, chemical warmer packs for hands/feet—especially if you have Raynaud's disease. In our high altitude you can get sunburned during any season—use sunscreen.

**Drink Plenty of Fluids:** You can get dehydrated in cold weather just as in hot weather and you may not notice.